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EUROPEAN PATENT APPLICATION

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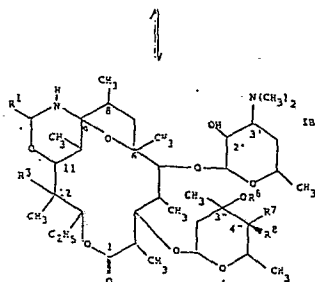
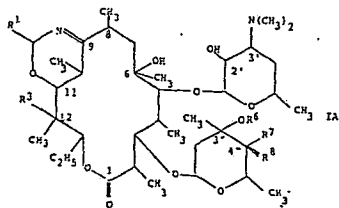
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⑫④⑤ **Erythromycin derivatives.**

⑫④⑥ 9-N,11-O-methylene derivatives of erythromycin-9-imine (wherein the methylene group is optionally substituted) of the general formula IA or IB:



or a pharmaceutically acceptable ester or acid addition salt thereof, wherein

R¹ denotes hydrogen, an unsubstituted or substituted hydrocarbon group, a heterocyclyl group, or an acyl group;

R³ denotes hydrogen or hydroxy;

R⁶ denotes hydrogen or methyl;

one of R⁷ and R⁸ denotes hydrogen, hydroxy, alkoxy, alkanoyloxy, amino, substituted amino, or a group of the formula R⁹-SO₂-O-, and the other of R⁷ and R⁸ denotes hydrogen, or R⁷ and R⁸ together denote an oxo group, an oxime group, or a substituted oxime group; and

R⁹ denotes an organic group, possess improved acid stability, compared with erythromycin A, whilst retaining good antibacterial activity.



DOCUMENTS CONSIDERED TO BE RELEVANT			
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (Int. Cl. 4)
Y	EP-A-0 238 178 (ELI LILLY) * Pages 5-7 * ---	1	C 07 H 17/08 A 61 K 31/70
Y	DE-A-2 515 075 (K. THOMAE) * Pages 1-4 * ---	1,9	
Y	US-A-3 884 904 (P. JONES) * Columns 3-6 * ---	1,9	
X	JOURNAL OF THE AMERICAN CHEMICAL SOCIETY, vol. 103, no. 11, 3rd June 1981, pages 3215,3217, American Chemical Society; R.B. WOODWARD et al.: "Asymmetric total synthesis of erythromycin. 3. Total synthesis of erythromycin" * Page 3217, left-hand column, 10c * ---	7	
X	EP-A-0 201 166 (BEECHAM) * Page 32, lines 16-30 * -----	7	
			TECHNICAL FIELDS SEARCHED (Int. Cl.4)
			C 07 H 17/00 A 61 K 31/00
The present search report has been drawn up for all claims			
Place of search THE HAGUE		Date of completion of the search 07-08-1989	Examiner VERHULST W.
CATEGORY OF CITED DOCUMENTS			
X : particularly relevant if taken alone Y : particularly relevant if combined with another document of the same category A : technological background O : non-written disclosure P : intermediate document		T : theory or principle underlying the invention E : earlier patent document, but published on, or after the filing date D : document cited in the application L : document cited for other reasons & : member of the same patent family, corresponding document	